

Title (en)
Apparatus for supporting substrates in processing chambers

Title (de)
Vorrichtung zur Unterstützung von Substrate in Bearbeitungskammer

Title (fr)
Dispositif de soutien de substrats dans chambres de traitement

Publication
EP 0747934 A1 19961211 (EN)

Application
EP 96304243 A 19960606

Priority
US 47222095 A 19950607

Abstract (en)
A substrate processing apparatus comprising a processing chamber in which a substrate support (16) is located. The substrate support, which is in the form of a heater pedestal, has a surface (22) dimensioned to receive the substrate (23), and is circumscribed by a removable purge ring (24) which defined an annulus (80) between itself and the pedestal. At the outer edge of the pedestal is a purge gas manifold (26), in the form of a cavity between the purge ring and the pedestal. The lower end of the manifold is sealed by means of a mechanical seal that is formed at process temperature as the pedestal (16) expands from heating and comes into contact with the purge ring's lower edge (84). The upper end of the manifold opens into the annulus (80) defined by the purge ring and the pedestal. The manifold is arranged so that during processing, purge gas is injected into the manifold and projected toward the edge of a substrate received on the surface of the pedestal. This gas moves upwards through the annulus defined between the purge ring and the substrate support. Consequently, processing gas is prevented from contacting the extreme edge portion of the substrate. This reduces unwanted deposition on the peripheral edge and lower surface of the substrate. <IMAGE> <IMAGE>

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H01L 21/00

IPC 8 full level
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Citation (search report)
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